

## Simulation of a planned Factory Layout

### Problem Statement

A new roller mill was about to be built. This has to be simulated in advance, to improve the system behaviour. Within this project a lot of analysis work had to be done.

### Improvement Approach

General usage of simulation for testing and improving purposes of the layout being planned

Analysis of potential bottlenecks

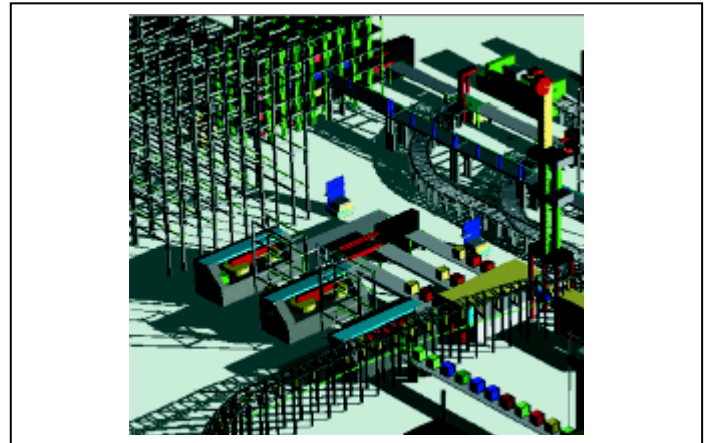
### Benefits

Reducing the time for setting-up operation of the factory

Extending classical statistical analysis of the planned factory

### Contact Information

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Simulated factory layout

## PROBLEM STATEMENT

- Costs and time waste for setting up a new production plant
- Analysis of various facts like:
  - Layout planning
  - Buffer analysis
  - Bottleneck analysis
  - Increase of production
- Complex workflow made simulation as the only one tool for getting realistic information and data
- Basing on simulation improvement and optimized strategies needed to be invented and developed under realistic circumstances

Newly planned factory sites are always demanding a certain amount of money and time for start-up problems to get everything up and running.

Those problems shall be avoided by using simulation.

## IMPROVEMENT APPROACH

The main goal was, to achieve knowledge of the complex processes and process dependencies inside the new factory plant before it is built finally.

This knowledge leads to changes in a project phase, where those necessary changes can be implemented easily and nearly without any additional costs, compared to modifications inside a fully built plant.

In addition optimized strategies for production have already been developed in parallel to the building of the plant.

The simulation model is continuously used for further studies due to new production plans.

## BENEFITS

The benefits, already mentioned in the topics above have all been reached.

The costs of this simulation project have been only about 10-20% of the expected costs for modifications after building the plant.

Less setup and starting time have been achieved.

A better understanding of the production and material flow from the first day of working was possible.